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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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21254	7590	12/29/2004	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			DOTE, JANIS L	
			ART UNIT	PAPER NUMBER
			1756	

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Please find below and/or attached an Office communication concerning this application or proceeding.

SK

Office Action Summary

Application No.

10/025,550

Applicant(s)

SUZUKI ET AL.

Examiner

Janis L. Dote

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 21-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The examiner acknowledges the cancellation of claims 11-20, the amendments to claims 1, 2, 5, 6, 9, and 10, and the addition of claims 21-33, filed on Oct. 1, 2004. Claims 1-10 and 21-33 are pending.

2. The rejections of claims 6 and 10 under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Jul. 1, 2004, paragraph 7, have been withdrawn in response to the amendments to claims 6 and 10 filed on Oct. 1, 2004.

The rejections of claims 1-10 under 35 U.S.C. 112, first paragraph, set forth in the office action mailed on Jul. 1, 2004, paragraph 12, have been withdrawn in response to the amendments to claims 1, 2, 5, 6, 9, and 10, filed on Oct. 1, 2004, and the amended paragraph beginning at page 17, line 20, of the specification, filed on Oct. 1, 2004, correcting the typographic error that the peripheral speed S1 ranges from 1.1 to 1.9, to read that the peripheral speed S2 ranges from 1.1 to 1.9.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 and claims dependent thereon are indefinite in the phrase "said developing said electrostatic latent image comprises using a center feed developing system" (emphasis added) for lack of unambiguous antecedent basis in claim 1 from which claim 21 depends. Claim 1 recites developing the electrostatic latent image with a developing device comprising first and a second developing rollers which rotate in mutually opposite directions using a two-component magnetic developing agent. The instant specification identifies the developing device recited in instant claim 1 as a "center feed developing system." See the instant specification, page 5, lines 1-3. It is not clear whether "a center feed developing system" recited in instant claim 21 refers to developing device other than the developing device recited in instant claim 1 or to the developing recited in instant claim 1, wherein the recitation in claim 21 is considered redundant.

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5. Claims 28-33 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are a first developing roller and a second developing roller that rotate at peripheral speed ratios S1 and S2 in the range of 0.8 to 2.0 and of 1.05 to 2.0, respectively, a magnetic carrier, and a toner having a shape coefficient SF2 in the range of 110 to 130.

Instant claims 28-33 recite an image forming method comprising the steps of supplying toner to an electrostatic latent image on an image carrier to develop said latent image to a toner image in a center feed developing system comprising the image carrier and at least one set of first and second developing rollers. The instant claims further recite that "said supplying said toner comprises preventing an excessive stress from being applied to said toner between the first and second developing rollers to restrict an occurrence of photographic fog."

The instant specification discloses that the prevention of stress is accomplished when the first and second developing rollers rotate at peripheral speed ratios S1 and S2 in the range of 0.8 to 2.0 and of 1.05 to 2.0, respectively, and the developing step uses a developing agent "consisting mainly" of a

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toner and magnetic carrier, where the toner has the shape coefficient SF2 in the range of 110 to 130. Originally filed specification, page 19, line 21, to page 21, line 10. The specification at page 21, lines 2-9, further discloses that the toner spent (the adherence and fusion of toner to the surface of the carrier) gives raise to the occurrence of fog. There is no disclosure in the originally filed specification of preventing stress as recited in the instant claims in a method that does not comprise first and second developing rollers that are rotating at the peripheral speed ratios S1 and S2 disclosed in the originally filed specification, and a developing agent consisting mainly of a toner and magnetic carrier where the toner has a shape coefficient SF2 of 110-130. Nor is there any disclosure of restricting the occurrence of photographic fog in an image forming method that does not comprise the use of such a developing agent consisting mainly of the toner and the magnetic carrier. It is not clear how the imaging method recited in the instant claims can prevent excessive stress from being applied to the toner to restrict the occurrence of photographic fog with a first developing roller and a second developing roller that are not rotating at peripheral speed ratios S1 and S2 in the range of 0.8 to 2.0 and of 1.05 to 2.0, respectively, and without a developing agent comprising a magnetic carrier and a

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toner having a shape coefficient SF2 in the range of 110 to 130.

There is no objective evidence on the present record showing that the imaging method broadly recited in the instant claims can prevent excessive stress from being applied to the toner to restrict the occurrence of photographic fog as recited in instant claims 28-33.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-10 and 21-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

(1) Claims 1 and 2 and claims 3-10, 21, 22, and 24-27, which depend from either claims 1 or 2, recite that "said developing said electrostatic latent image comprises preventing

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an excessive stress from being applied to said developing agent between the first and second developing rollers to restrict an occurrence of photographic fog."

The originally filed specification does not provide an adequate written description of such a prevention. The originally filed specification at page 20, line 23, to page 21, line 10, discloses that "when the toners pass through the developing agent distributing member 8 and through between the developing rollers **61, 62**, due to the poor fluidity of the toners, the stress to be applied to the developing agent becomes excessively large . . . in the case where stress becomes excessively large, the spent [toners fused and adhered to the magnetic carrier surfaces] occurrence speed increases" (emphasis added). The specification at page 21, lines 5-9, discloses that large toner spent gives rise to the occurrence of photographic fog. In other words, the specification appears to disclose that the "poor fluidity of the toner" increases the "stress" applied to the developing agent as the developing agent passes through the "developing agent distributing member 8 and through between the developing rollers **61, 62**" (emphasis added), which thereby increases toner spent. The specification does not disclose that the developing step comprises preventing an excessive stress from being applied to the developing agent only between the

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first and second developing rollers, as recited in instant claims 1 and 2.

(2) Instant claims 28-33 recite an image forming method comprising the steps of supplying toner to an electrostatic latent image on an image carrier to develop said latent image to a toner image in a center feed developing system comprising the image carrier and at least one set of first and second developing rollers. The instant claims further recite that "said supplying said toner comprises preventing an excessive stress from being applied to said toner between the first and second developing rollers to restrict an occurrence of photographic fog."

The originally filed specification does not provide an adequate written description of the image forming method recited in the instant claims for the following reasons:

(a) The originally filed specification discloses that the first developing roller moves in a direction opposite to the moving direction of the image carrier in a developing area and the second developing roller moves in a direction that is the same as the moving direction as the image carrier in the developing area. The specification discloses that the peripheral speed ratio $S1$ of the peripheral speed of the first developing roller $Vm1$ to the peripheral speed of the image

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carrier V_p be in the range of 0.8 to 2.0; and that the peripheral speed ratio S_2 of the peripheral speed of the second developing roller V_{m2} to the peripheral speed of the image carrier be in the range of 1.05 to 2.0. Originally filed specification, page 8, line 17, to page 9, line 3; page 10, lines 5-15; and page 22, lines 5-13. The originally filed specification does not disclose that its invention comprises first and second developing rollers rotating at peripheral speed ratios S_1 and S_2 that are outside the ranges of 0.8 to 2.0 and of 1.05 to 2.0, respectively. The method recited in instant claims 28-31 and 33 is broader than the originally disclosed method because it comprises the use of first and second developing rollers that rotate at peripheral speed ratios S_1 and S_2 that are outside the ranges of 0.8 to 2.0 and 1.05 to 2.0, respectively, required by the invention disclosed in the originally filed specification.

(b) The originally filed specification further discloses that a developing agent "consisting mainly of toners and magnetic carriers" is used in the developing device comprising the two developing rollers, where the toners from the developing agent are supplied to electrostatic latent image on an image carrier to form a toner image, and the toners have shape coefficients SF_1 and SF_2 as defined at page 9, lines 8-11, of

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120 to 170 and 110 to 130, respectively. Originally filed specification, page 1, lines 8-11, page 8, lines 14-17, page 9, lines 3-15, page 10, lines 1-4, and page 10, line 15, to page 11, line 1. There is no disclosure in the originally filed specification of using only a toner in a center developing device as recited in instant claims 28-33. Nor is there any disclosure in the originally filed specification of using a toner as broadly recited in instant claims 28, 29, and 33. The toner recited in the instant claims 28-33 is broader than the originally filed developing agent because it encompasses developing agents that do not comprise magnetic carriers, such as mono-component developing agents. The toner recited in instant claims 28, 29, and 33 is further broader than the originally disclosed toner because it encompasses toners that do not have the shape factors SF1 and SF2 as required by the invention disclosed in the originally filed specification.

(c) As discussed in item (1) above, the originally filed specification at page 20, line 23, to page 21, line 10, appears to disclose that the "poor fluidity of the toner" increases the "stress" applied to the developing agent as the developing agent passes through the "developing agent distributing member 8 and through between the developing rollers 61, 62" (emphasis added), which thereby increases toner spent. The specification does not

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disclose that the developing step comprises "preventing an excessive stress from being applied to the developing agent between the first and second developing rollers" as recited in instant claims 28 and 30-33.

Moreover, the originally filed specification discloses that the prevention of stress is accomplished when the first and second developing rollers rotate at peripheral speed ratios $S1$ and $S2$ in the range of 0.8 to 2.0 and of 1.05 to 2.0, respectively, and the developing step uses a developing agent consisting of a magnetic carrier and a toner having a shape coefficient $SF2$ in the range of 110 to 130. Originally filed specification, page 19, line 21, to page 21, line 10. The specification at page 21, lines 2-9, further discloses that the toner spent (the adherence and fusion of toner to the surface of the carrier) gives raise to the occurrence of fog. There is no disclosure in the originally filed specification of preventing stress as recited in instant claims in a method that does not comprise first and second developing rollers that are rotating at the peripheral speed ratios $S1$ and $S2$ disclosed in the originally filed specification, and a developing agent consisting mainly of toners and magnetic carriers where the toners have the shape coefficient $SF2$ of 110-130. Nor is there any disclosure of restricting the occurrence of photographic fog

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in an image forming method that does not comprise the use of a developing agent comprising a toner and a magnetic carrier.

8. Claims 28-33 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A first developing roller and a second developing roller rotating at peripheral speed ratios S1 and S2 in the range of 0.8 to 2.0 and of 1.05 to 2.0, respectively, a magnetic carrier, and a toner having the shape coefficient SF2 in the range of 110 to 130, are critical or essential elements to the practice of the invention. The instant claims do not recite the presence of the critical or essential elements. Therefore, the instant claims are not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Instant claims 28-33 recite an image forming method as described in paragraph 5, supra, which is incorporated herein by reference. The specification does not disclose preventing stress as recited in instant claims in a method that does not comprise first and second developing rollers that rotate at the peripheral speed ratios S1 and S2 disclosed in the originally filed specification, and a developing agent consisting mainly of a toner and magnetic carrier where the toner has a shape coefficient SF2 of 110-130. Nor is there any disclosure of

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restricting the occurrence of photographic fog in an image forming method that does not comprise the use of such a developing agent comprising the toner and the magnetic carrier. For the reasons discussed in paragraph 5, supra, it is not clear how the imaging method recited in the instant claims can prevent excessive stress from being applied to the toner to restrict the occurrence of photographic fog with a first developing roller and a second developing roller that are not rotating at peripheral speed ratios S_1 and S_2 in the range of 0.8 to 2.0 and of 1.05 to 2.0, respectively, and without a developing agent comprising a magnetic carrier and a toner having a shape coefficient SF_2 in the range of 110 to 130. There is no objective evidence on the present record showing that the imaging method recited in the instant claims can prevent excessive stress from being applied to the toner to restrict the occurrence of photographic fog as recited in instant claims 28-33. Thus, on the present record, it would require undue experimentation for one of ordinary skill in the art to use the image forming method recited in the instant claims to prevent excessive stress from being applied to the toner between the two developing rollers to restrict the occurrence of photographic fog as recited in instant claims 28-33. The full scope of the instant claimed subject matter cannot be practiced

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based on the limited disclosure provided by the instant specification.

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. In order to expedite prosecution, the examiner has interpreted the claim language "a center feed developing device" recited instant claims 21-23 to refer to the developing device recited in instant claim 1 from which claims 21-23 depend.

11. Claims 1-10 and 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,923,933 (Anzai), as evidenced by applicants' admission at page 5, lines 1-3, defining the term "center feed developing system," combined with Japanese Patent 2000-267338 (JP'338). See the DERWENT English-language translation of JP'338 for cites.

Anzai discloses an image forming method comprising the steps of: (1) developing an electrostatic latent image formed on an image carrier 1 with a two-component developer comprising a toner and magnetic carrier; (2) transferring the toner image onto a recording medium; and (3) fixing the transferred toner image to the recording medium using the fixing device 25. See

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Fig. 1, col. 4, lines 27-34, and col. 4, line 56, to col. 5, line 5. Anzai at col. 8, lines 4-10, discloses that the fixing device 25 is composed of a heated roller 27 and a back-up pressing roller 26 to fix the toner image transferred to a paper sheet. In other words, Anzai's fixing device 25 uses heat and pressure to fix a toner image on a recording material, such as paper.

In the Anzai method, the electrostatic latent image is developed by a developing device that comprises a first developing roller 61 and a second developing roller 62 rotating in directions opposite to each other, and a regulating member 8 between the first and second developing rollers. The regulating member 8 restrictively distributes the developing agent to the first and second developing rollers. Col. 5, lines 39-67. The regulating member 8 is within the developing agent distributing member structural limitations recited in instant claim 22 and 29.

Anzai does not explicitly identify its developing device as a "center feed developing system" as recited in instant claims 21-23 and 28-32. However, the instant specification at page 5, lines 1-3, discloses that a "center feed developing system" includes two developing rollers that rotate in mutually opposite directions. As discussed above, the first developing

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roller 61 and the second rollers 62 in the Anzai developing device mutually rotate in opposite directions. Thus, the developing device of Anzai meets the structural components of the "center feed developing system" recited in the instant claims. Hence, it is reasonable to conclude that the Anzai developing device is a "center feed developing system" as recited in instant claims 21-23 and 28-32. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

The first developing roller 61 moves in a direction opposite to the image carrier 1, and the second roller 62 moves in the same direction as the image carrier 1. Anzai discloses that when the ratio of circumferential (or peripheral) speed S1 of the first developing roller 61 to the circumferential speed of the image carrier 1 is set to 1.5, the ratio of the circumferential speed of the second roller to the image carrier S2 is in the range of 1.5 to 5.0 to obtain an "allowable image." Col. 12, lines 23-27. The ratio S1 of 1.5 and the lower limit of the ratio S2, 1.5, are within the ranges of 0.8 to 2.0 and 1.05 to 2.0, respectively, recited in instant claims 1, 2, 31, and 32, and are also with the ranges recited in instant claims 3 and 7 and claims 4 and 8, respectively.

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Anzai discloses that the magnetic carrier in the two-component magnetic developer may be a ferrite or a magnetite carrier. Col. 9, lines 29-30. Both ferrite magnetic carriers and magnetite magnetic carriers meet the compositional limitation recited in the instant claims 6 and 10. Anzai further teaches that the magnetic carriers have a volume average particle size of 70 to 120 μm . Col. 9, lines 30-31. The volume average particle size of 70 to 120 μm is within the average diameter range of 50 to 150 μm recited in instant claims 6 and 10.

Anzai does not disclose the use of a toner having the shape coefficients SF1 and SF2 as recited in instant claims 1 and 2. Anzai discloses that "the toner used is a toner containing a resin, a coloring material, a charging control material and so on and having a volume average particle size of 5 to 12 μm ." Anzai discloses that the resin can be copolymer of styrene and acrylic acid or a polyester resin. Anzai teaches that toners having said particles are capable of providing a "high resolution print above 16 lines per mm." Col. 9, lines 52-60.

JP'338 discloses a toner having shape coefficients SF1 and SF2 of 148 and 123, respectively, which are within the ranges of 120 to 170 and 110 to 130, respectively, recited in instant claims 1, 2, and 30, and within the ranges of 130 to 160 and 115

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to 120, respectively, recited in instant claim 27. See toner 1 at paragraphs 0058-0060, and Table 1 at paragraph 0075. The toner has a volume average particle size of 8.0 μm . See paragraph 0059. The volume average particle size of 8.0 μm is within the range of 5 to 12 μm taught by Anzai, and within the average diameter range of 6 to 12 μm recited in instant claims 5 and 9. JP'338's toner comprises a polyester binder resin, a wax, and colorant. JP'338 teaches that the toner may further comprise a charge control agent to adjust the electrification of the toner. Paragraph 0048. JP'338 discloses that its toner can be used in a two-component developer comprising a magnetic carrier. Paragraphs 0052-0053.

Accordingly to JP'338, its toner has superior powder characteristics, such as storage stability, and good offset resistance. Paragraphs 0007 and 0076. JP'338 further discloses that its toner can be fixed without the use of a releasing oil. Paragraph 0054. JP'338 discloses that when the releasing oil evaporates, an unpleasant smell may be given off or it may contaminate the inside of the imaging apparatus. Paragraph 0004, lines 29-32. Furthermore, JP'338 teaches that "according to the electrophotographic toner of this invention, when treated in a copying machine as a powder, there is no problem in the fluidity [of the toner]." Paragraph 0012,

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lines 1-4. In other words, JP'338 teaches that its toner does not aggregate or stick to the components of the apparatus.

It would have been obvious for a person having ordinary skill in the art to use JP'338's toner 1 having shape coefficients SF1 and SF2 of 148 and 123, respectively, as the toner in the image forming method disclosed by Anzai, and to use a fixing device without using a release oil in the fixing step in said method, because that person would have had a reasonable expectation of successfully obtaining an image forming method that provides fixed toned images on recording media without offset and without unpleasant odors as taught by JP'338.

The recitations "said developing said electrostatic latent image comprises preventing an excessive stress from being applied to said developing agent between said first and second developing rollers to restrict an occurrence of photographic fog" in the instant claims 1, 2, and 28, "said developing . . . further comprises preventing an excessive stress from being applied to said developing agent by said developing agent distributing member to restrict an occurrence of photographic fog" in claims 23 and 29, "said preventing said excessive stress comprises preventing said toners from fusing and adhering to a surface of said magnetic carriers" in claim 24, and "said preventing comprises controlling the shape of said toner

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particles" in claim 25 are statements of intended use, which do not distinguish the method rendered obvious over the combined teachings of Anzai and JP'338. The instant specification at page 19, line 21, to page 21, line 10, discloses that the prevention of stress being applied to the developing agent as the toner passes through the developing agent distributing member and through between the two developing rollers is accomplished when the first and second developing rollers rotate at the peripheral speed ratios S1 and S2 in the range of 0.8 to 2.0 and of 1.05 to 2.0, respectively, and the developing step uses a developing agent consisting mainly of magnetic carriers and toners, where the toners have a shape coefficient SF2 in the range of 110 to 130. The specification at page 21, lines 2-9, further discloses that the toner spent (the adherence and fusion of toner to the surface of the carrier,) gives raise to the occurrence of fog. The recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art or in a process, a manipulative difference, in order to patentably distinguish the claimed invention from the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963). As discussed above, Anzai teaches a method that meets the steps recited in the instant claims but for the use of the particular

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toner recited in the instant claims. JP'338's toner has an SF1 and an SF2, which meet the SF1 and SF2 limitations recited in the instant claims. JP'338 also teaches that "according to the electrophotographic toner of this invention, when treated in a copying machine as a powder, there is no problem in the fluidity [of the toner]." In other words, JP'338 teaches that its toner does not aggregate or stick to the components of the apparatus. Thus, the intended use recited in the instant claims does not result in a difference between the method recited in the instant claims and the method rendered obvious over the combined teachings of Anzai and JP'338.

12. Applicants' arguments filed on Oct. 1, 2004, regarding the rejection in paragraph 11 above have been fully considered but they are not persuasive.

Applicants assert that the references are "completely unrelated" and that "no person of ordinary skill in the art would have considered combining these disparate references." Applicants assert that the "Examiner can point to no motivation and suggestion in the references to urge the combination as alleged by the Examiner." Applicants urge that JP'338 "does not teach or suggest the ranges of shape coefficients in JP'338 are

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not directed to a center feed developing system" as recited in the instant claims.

However, as discussed in the rejection in paragraph 11 above, Anzai's method comprises developing an electrostatic latent image with a developing device comprising two developing rollers 61 and 62 and a regulating member 8 located between the two developing rollers, and the steps of transferring the developed toner image from the image carrier to a recording material and fixing the transferred toner image to the recording material with a fixing device 25 to form a recorded fixed image on a recording material. The developing device of Anzai meets the limitations of a "center feed developing system" recited in the instant claims. These steps are also required in the method recited in instant claims 1-10 and 21-27. The developing step is also required in the method recited in instant claims 28-32. Anzai discloses that the fixing device 25 is composed of a heated roller 27 and a back-up pressing roller 26 to fix the toner image transferred to a paper sheet. In other words, Anzai's fixing device 25 uses heat and pressure to fix a toner image on a recording material, such as paper. As noted by applicants, JP'338 also "uses heat and pressure to fix an image [toner] to recording media, such as paper." See applicants' response filed on Jun. 6, 2003, page 12, lines 14-19. Thus,

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both Anzai and JP'338 teach heat-fixing a toner image on a recording medium, such as paper, with a heat-fixing device by the use of pressure and heat. Accordingly, a person having ordinary skill in the art would have recognized that Anzai's imaging method comprises a heat-fixing step, and that the use of a heat-fixing device without using a release oil, as taught by JP'338, can readily be used in Anzai's heat-fixing step.

Moreover, the reasons to combine the references do not have to be those of applicants. As discussed in the rejection, JP'338 teaches a toner that not only meets the toner shape coefficients SF1 and SF2 limitations recited in instant claim 1, 2, and 30 but also has the properties that Anzai teaches are desirable for use in Anzai's imaging method. JP'338 discloses the advantages of using its toner in electrophotographic imaging processes. See the rejection paragraph above, page 18. Thus, a person having ordinary skill in the art would have found ample reason, suggestion, and motivation in the teachings of JP'338 and Anzai to use JP'338's toner and a fixing device without using a release oil in the image forming method taught by Anzai.

Applicants further assert that neither Anzai nor JP'338 teaches or suggests that the developing step "comprises preventing an excessive stress from being applied to said developing between said first and second developing rollers to

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restrict an occurrence of photographic fog" as recited in the instant claims.

For the reasons discussed in the rejection set forth in paragraph 11 above, the recitation developing step "comprises preventing an excessive stress from being applied to said developing between said first and second developing rollers to restrict an occurrence of photographic fog" is a statement of intended use that does not distinguish the method recited in the instant claims from the method rendered obvious over the prior art. Moreover, there is no disclosure in Anzai that explicitly excludes of use of toners having the shape factors SF1 and SF2 as recited in the instant claims. Nor does Anzai disclose that the use of such toners are detrimental to its invention. Accordingly, for the reasons discussed above and in the rejection set forth in paragraph 11 above, the rejection stands.

13. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS**

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of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD

Dec. 27, 2004

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